



Occurrence Details

Occurrence Number: 115G 007
Occurrence Name: Copper Joe
Occurrence Type: Hard-rock
Status: Unknown
Date printed: 12/15/2025 1:07:54 PM

General Information

Deposit Type(s): Ultramafic Mafic Gabbroid Cu-Ni-PGE
Location(s): 61°17'48" N - -139°0'46" W
NTS Mapsheet(s): 115G06
Location Comments: 1 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Duke cl (Y18554) in Jun/67 by Newmont based on GSC aeromagnetic data. Prospecting and silt sampling was conducted later in the year.

Capsule Geology

The occurrence is located in Wrangellia, an accreted terrane extending 2340 km from Alaska to southern B.C.. In the area of the occurrence, Wrangellia is bounded to the northeast by the Denali Fault System and to the southwest by the Duke River Fault. The oldest Wrangellian rocks in the region are the Pennsylvanian-Permian Skolai Group, which consists of Station Creek Formation tuffs, pyritic black tuffs, mafic volcanics and argillite that are overlain by Hasen Creek Formation tuffs, mafic volcanics, argillite and limestone. The Skolai Group is stratigraphically overlain by Middle(?) Triassic phyllite, Upper Triassic Nikolai formation basalt and Upper Triassic McCarthy Formation Limestone and phyllite. Tertiary volcanic and sedimentary rocks unconformably overlie the sequence.

Two major suites of intrusive rocks are present in the belt. The oldest is Triassic and includes gabbro, peridotite, dunite and clinopyroxenite of the Kluane mafic-ultramafic complex and gabbro sills and dykes of the Maple Creek Gabbro. The sills are estimated to be up to 18 km long and 600 m thick. The Maple Creek gabbro is thought to be coeval with the Kluane mafic-ultramafic complex and to have acted as a feeder to the Nikolai formation. The Cretaceous Kluane Ranges suite are dioritic to granodioritic in composition and occur throughout northern Wrangellia. Minor Tertiary sills, dykes and stocks of felsic to intermediate composition are also present.

The claims are underlain by Nikolai formation basalt and occur just southwest of the Denali Fault. No significant mineralization was found, although minor copper occurrences are common in the Triassic rocks.

References

ISRAEL, S. and VAN ZEYL, D., 2004. Preliminary bedrock geology of the Quill Creek area (parts of NTS 115G/5, 6, 12), southwest Yukon (1:50 000 scale). Yukon Geological Survey, Open File 2004-2.

ISRAEL, S., TIZZARD, A. and MAJOR, J., 2005. Geological map of the Duke River area (parts of NTS 115G/2, 3, 5, 6, 7), Yukon (1:50,000 scale). Yukon Geological Survey, Open File 2005-11.

READ, P.B. and MONGER, J.W.H., 1976. Pre-Cenozoic assemblages of the Kluane and Alsek Ranges, southwest Yukon Territory. Geological Survey of Canada, Open File 381, 96 p.

Work History

Date	Work Type	Comment
12/31/1967	Geochemistry	
12/31/1967	Other	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
060989	1970	Report on Niamodlaoc Mountain Coal Prospect, 1970 Field Season	Rock - Geochemistry		
092054	1953	Report on the Geophysical Surveys in the Shakwak Valley Area, Yukon Territory for Canalask Nickel Mines Limited.	Magnetic - Airborne Geophysics		